

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

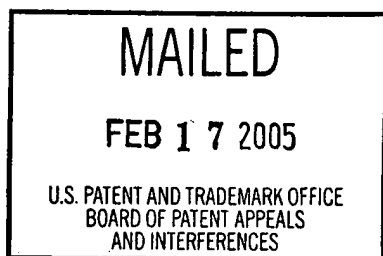
UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte DANIEL A. LAWLYES and DAVID PAUL BUEHLER



---

Appeal No. 2005-0303  
Application No. 09/928,884

---

ON BRIEF

---

Before KRASS, BARRETT and NAPPI, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 8-17. Claims 1-7 have been cancelled and form no part of this appeal.

The invention is directed to a partitioned circuit assembly. In particular, a circuit assembly is disclosed for use as an automotive engine controller and is said to provide an electronic assembly with partitioned circuits for increased design flexibility.

Representative independent claim 15 is reproduced as follows:

15. A partitioned circuit assembly for integration into an engine controller comprising:

a partitioned circuit element;

a partitioned circuit housing surrounding said partitioned circuit element; and

a plurality of connectors.

The examiner relies on the following references:

Natsume	5,764,487	Jun. 09, 1998
Denzene et al. (Denzene)	6,219,258	Apr. 17, 2001 (Filed Jan. 29, 1999)

Claims 8, and 13-15 stand rejected under 35 U.S.C. §102 (b) over Natsume.

Claims 9-12, 16, and 17 stand rejected under 35 U.S.C. §103 as unpatentable over Natsume in view of Denzene.

Reference is made to the briefs and answer for the respective positions of appellants and the examiner.

#### OPINION

Turning first to the rejection under 35 U.S.C. §102 (b), a claim is anticipated only when a single prior art reference expressly or inherently discloses each and every element or step thereof. Constant v. Advanced Micro-Devices Inc., 848 F.2d 1560, 1570, 7 USPQ2d 1057, 1064 (Fed. Cir. 1988); RCA Corp. v. Applied Digital Data

Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). If the examiner presents a reasonable basis for alleging inherency, the burden shifts to appellants to come forward, if they can, with evidence to the contrary. In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); In re Ludtke, 441 F.2d 660, 664, 169 USPQ 563, 566-67 (CCPA 1971); In re Swinehart, 439 F.2d 210, 213, 169 USPQ 226, 229 (CCPA 1971).

Natsume discloses a junction block with an integral printed circuit board and electrical connectors for use in an automotive vehicle. In applying the disclosure of the reference to the instant claims, the examiner specifically identifies busbar 28 in Natsume as the claimed "main assembly board," Natsume's upper and lower housing segments 24, 26, as the claimed "main assembly housing," Natsume's fuse 16 as the claimed "partitioned circuit element," the receptacle 22, into which the fuse 16 is inserted, as the claimed, "partitioned circuit housing," and Natsume's male terminals 32 as the claimed "plurality of connectors."

Appellants do not deny that the identified elements of Natsume interact in the same manner (i.e., fuse 16 is mounted within housing 22 and the connectors 32 place the fuse in communication with busbar 28) as the claimed elements. Appellants do argue, however, that the wiring harnesses 12, relays 14 and fuses 16 of Natsume "are

not partitioned circuit assemblies as claimed by the present invention" (principal brief-page 4). It is urged by appellants that these elements of Natsume are electrical components within a circuit assembly but they are not circuit assemblies themselves.

Appellants argue that "partitioned circuits," as claimed, and as described in the specification, at paragraph 15, must "perform functions" and are "not mere components within a single circuit" (principal brief-page 5).

Moreover, appellants argue that Natsume does not teach the claimed "engine controller" since a fuse panel is not an engine controller, and that the instant claims are "clearly and unambiguously limited...to an automotive engine controller" (principal brief-page 5).

We have carefully reviewed the evidence in this case, including the arguments of appellants and the examiner and we conclude that the examiner has set forth a prima facie case of anticipation which has not been convincingly rebutted by appellants. Therefore, we will sustain the rejection of claims 8 and 13-15 under 35 U.S.C. §102 (b).

It is our view that "partitioned circuits," as broadly recited, may, indeed, encompass any circuit which is not integral with another circuit, i.e., it is "partitioned" with regard to other circuits. The fuse 16 of Natsume is clearly a "circuit element" and it is separate from, but connectable to, other circuit elements, so it may be said to be a "partitioned circuit." Appellants attempt to give a special meaning to the term

“partitioned circuits” by pointing to paragraph 15 of the specification, specifically to the recitation of “. . . the use of the partitioned circuit assembly 14 may be utilized to add functions to the main circuit assembly 12” arguing that the claimed “partitioned circuits” must perform “functions.”

We disagree. The portion of the specification to which appellants allude offers no specific definition of the term “partitioned circuits” and we are unsure as to what specific meaning appellants are attempting to give this term. If appellants are urging that there must be some “function” associated with a partitioned circuit, in accordance with paragraph 15 of the specification, we initially note that the cited portion of the specification recites that the partitioned circuit “may” be utilized to add functions. Thus, by appellants’ own specification, a partitioned circuit need not necessarily perform functions, but it is merely permissible to perform functions. We note, further, that even considering a partitioned circuit to perform functions, it can be said that the fuse 16 of Natsume performs a function, i.e., it performs a safety function of protecting a circuit in case of an overload.

With regard to appellants’ argument that the Natsume elements relied on by the examiner are merely electrical components within a circuit assembly and do not constitute circuit assemblies themselves, we are not persuaded. As broadly claimed,

we find no reason that a single electrical component may not be considered, itself, to be an electrical “assembly.” The fuse 16 of Natsume may be considered a “fuse assembly,” i.e., an “electrical assembly.”

With regard to appellants’ argument re no engine controller in Natsume, we are unpersuaded for two reasons.

First, we agree with the examiner that the mere recitation of an “engine controller” in the preamble of the claims is only an indication of intended use, not entitled to patentable weight since this recitation in the preamble fails to give any life or meaning to the remainder of the claims.

Claim limitations, even in the preamble, are essential if “necessary to give meaning” to the claims and properly define the invention. In re Fritch, 972 F.2d 1260, 1262, 23 USPQ2d 1780 (Fed. Cir. 1992). In the instant case, there is no connection recited in the claims between the assembly board/housing/partitioned circuit assembly and the fact that appellants intend to use this assembly in an engine controller. Therefore, we find that the recitation of an “engine controller” is not necessary to give life and meaning to the claims and we do not find such recitation to be essential to the claimed subject matter.

It is clear that the recitation of an “engine controller” is merely a statement of appellants’ intended use for the partitioned circuit assembly. Statements of intended

use in a preamble do not distinguish claimed structural apparatus from a reference disclosing the structure but not the intended use. In re Sinex, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962). Natsume, in our view, discloses the structure, even if, arguably, not appellants' intended use.

Second, even if the preamble recitation of an "engine controller" is considered to give life and meaning to the instant claims, and we do not view it as such, since the junction block of Natsume involves mating electrical components such as fuses, relays, and wiring harness connectors, it would not be unfair to say, in a broad sense, that the elements disclosed by Natsume constitute an "engine controller" in the sense that fuses, relays, and wiring harness connectors are responsible, in their small part, for keeping the automotive engine running. Note column 1, lines 15 et seq. of the reference, where it is stated that the electrical junction block is employed for the "distribution of electrical power from the battery and alternator to the various electrical systems of the vehicle." If that electrical power is not properly distributed, the engine will not operate. Thus, the junction block may be said to be an "engine controller."

Accordingly, we will sustain the rejection of claims 8, and 13-15 under 35 U.S.C. §102 (b).

Turning to the rejection of claims 9-12, 16, and 17 under 35 U.S.C. §103, the examiner turns to Denzene for a teaching of a heat sink, a passivation material, and a

seal element employed in a pre-assembled circuit assembly, and concludes that it would have been obvious to adapt the pre-assembled circuit assembly of Natsume to include a heat sink element, passivation material, and a seal element in order to protect the inner components of the assembly from EMI interference and environmental pollution. The examiner notes that appellants are merely remedying a common problem within the electronics industry by providing a heat sink and seal elements.

The examiner's reasoning appears cogent to us.

Appellants first argue (principal brief-page 6) that neither Natsume nor Denzene teaches an automotive engine controller with a partitioned circuit assembly. We find this argument to be unpersuasive for the reasons, supra, since we find that Natsume does, indeed, suggest an automotive engine controller with a partitioned circuit assembly, as broadly claimed.

Next, appellants assert that Denzene constitutes non-analogous art since it teaches a circuit assembly for use on outdoor telecommunications boxes. While appellants recognize that such boxes will experience environmental conditions, "they do not come anywhere near the conditions experienced by an engine controller..." (principal brief-page 6).

The test for analogous art outside an inventor's field of endeavor is whether the art pertains to the particular problem confronting the inventor. In re Clay, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992).

While Denzene's box may be outside of appellants' endeavor, i.e., engine controllers, Denzene clearly teaches those skilled in the art of protecting electronic circuits of the need for heat sinks, seals and passivation material, the problem confronting the instant inventors. While the "degree" of protection for circuits in a box exposed to the outdoor elements in all seasons may be different from the protection needed for circuitry in the high temperature environment of an automobile engine, Denzene's teaching would have clearly led the artisan to provide for heat sinks, passivation material and seals in protecting electronic circuits, with the degree of protection clearly up to the particular environment in which the circuitry is to be used. We note that nothing in the instant claims is specific to any special type of heat sink, passivation material or seal, germane only to automotive engine controllers. Clearly, the artisan would have known to use the proper material (e.g., a seal with a very high melting point) when employing circuit protection in a high-temperature environment.

Although appellants argue that the instant claims call for an individual heat sink associated with each partitioned circuit portion of an engine controller, we find nothing in the instant claims requiring such "individual" heat sinks. But, in any event, we find the examiner's rationale that there is nothing unobvious about providing for multiple

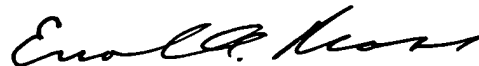
heat sinks for multiple elements or a single heat sink for a plurality of elements, convincing. Appellants state that to “individually heat sink partitioned circuits within the engine controller is significantly more than (sic, than) simply (heat sinking a component)” (principal brief-page 7) but provides no convincing explanation as to why this is deemed unobvious over a teaching of providing heat sinks to protect circuits. Appellants contend that by utilizing independent cooling on the partitioned circuit portions of the engine controller, “specific heat generating components can be specifically addressed while heat from such components can be isolated from the central controller” (principal brief-page 8). But, it would appear to be a design choice, well within the skill of an artisan, as to whether one wishes to heat sink individual components or a group of components, or to seal individual components or a plurality of components. Again, in any event, we do not find the argued limitation in the instant claims. Accordingly, we will sustain the examiner’s rejection of claims 9-12, 16, and 17 under 35 U.S.C. §103.

We have sustained the rejection of claims 8, and 13-15 under 35 U.S.C. §102 (b) and the rejection of claims 9-12, 16, and 17 under 35 U.S.C. §103. Accordingly, the examiner’s decision is affirmed.

Appeal No. 2005-0303  
Application No. 09/928,884

No time period for taking any subsequent action in connection with this appeal  
may be extended under 37 CFR § 1.136(a) (1) (iv).

AFFIRMED



ERROL A. KRASS )  
Administrative Patent Judge )



LEE E. BARRETT )  
Administrative Patent Judge )



ROBERT E. NAPPI )  
Administrative Patent Judge )

) BOARD OF PATENT  
) APPEALS  
) AND  
) INTERFERENCES  
)  
)  
)  
)

EAK/vsh

Appeal No. 2005-0303  
Application No. 09/928,884

DELPHI TECHNOLOGIES, INC.  
M/C 480-410-202  
PO BOX 5052  
TROY, MI 48007